

WHAT IS CLAIMED IS:

1. A system for separating immiscible fluids comprising:

a hollow vessel having an upper end and a lower end, an input opening being formed through said lower end, a first output opening being formed through said upper end, a second output opening being formed through said hollow vessel adjacent said lower end, said input opening being adapted to receive a mixture of first and second fluids, said first and second fluids being immiscible with respect to one another, said first fluid having a density less than a density of said second fluid, said hollow vessel receiving a separation medium having a density greater than said density of said first fluid and less than said density of said second fluid, said separation medium being immiscible with respect to said first and second fluids;

a primary tube being received within said hollow vessel;

a secondary tube extending through said input opening and guiding said mixture of said first and second fluids within said primary tube, wherein said first and second fluids separate in said separation medium within said primary tube, said second fluid settling within said hollow vessel beneath said primary tube and being drained through said second output opening, said first

fluid rising within said hollow vessel above said primary tube and being drained through said first output opening.

2. The system for separating immiscible fluids as recited in Claim 1, wherein said separation medium is a silicone fluid.

3. The system for separating immiscible fluids as recited in Claim 2, wherein said separation medium has a specific gravity of 0.953.

4. The system for separating immiscible fluids as recited in Claim 1, wherein said first fluid is an oil.

5. The system for separating immiscible fluids as recited in Claim 1, wherein said second fluid is water.

6. The system for separating immiscible fluids as recited in Claim 1, wherein said secondary tube has a check valve mounted thereto for controlling flow of said mixture.

7. The system for separating immiscible fluids as recited in Claim 1, further comprising a standing column in communication with said second output opening for draining said second fluid.

8. The system for separating immiscible fluids as recited in Claim 1, further comprising a drainage tube in communication with said first output opening for draining said first fluid.

9. The system for separating immiscible fluids as recited in Claim 1, further comprising a pump for driving said mixture into said secondary tube from a source of said mixture, said mixture being driven by said pump under pressure.

10. The system for separating immiscible fluids as recited in Claim 1, wherein said primary tube has an upper end and a lower end.

11. The system for separating immiscible fluids as recited in Claim 10, wherein an interface between said first fluid and said separation medium forms adjacent said upper end of said primary tube.

12. The system for separating immiscible fluids as recited in Claim 10, wherein an interface between said second fluid and said separation medium forms adjacent said lower end of said primary tube.

13. A method for separating immiscible fluids comprising the steps of:

(a) establishing a mixture of first and second fluids, said first and second fluids being immiscible with respect to one another, said first fluid having a density less than a density of said second fluid;

(b) establishing a hollow vessel, said hollow vessel receiving a separation medium, said separation medium having a density greater than said density of said first fluid and less than said density of said second fluid;

(c) charging said first and second fluids into said separation medium; and,

(d) settling said second fluid by gravity assist out of said separation medium and permitting said first fluid to rise out of said separation medium.

14. The method for separating immiscible fluids as recited in Claim 13, further including the step of removing said first fluid from said hollow vessel.

15. The method for separating immiscible fluids as recited in Claim 13, further including the step of removing said second fluid from said vessel.

16. The method for separating immiscible fluids as recited in Claim 13, wherein step (d) is followed by the formation of an interface between said first fluid and said separation medium.

17. The method for separating immiscible fluids as recited in Claim 13, wherein step (d) is followed by the formation of an interface between said second fluid and said separation medium.

18. The method for separating immiscible fluids as recited in Claim 13, wherein said step of charging said first and second fluids includes the delivery of said first and second fluids to the interior region of a hollow tube immersed in said separation medium.

19. The method for separating immiscible fluids as recited in Claim 13, wherein said step of charging said first and second fluids includes the regulation of flow of said first and second fluids by a check valve.

20. The method for separating immiscible fluids as recited in Claim 13, wherein said step of charging said first and second fluids is preceded by the pumping of said mixture from a source of said mixture by a pressurized pump.